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Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Army	DATE: February 2012
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APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE							
2040: <i>Research, Development, Test & Evaluation, Army</i> BA 5: <i>Development & Demonstration (SDD)</i>				PE 0604220A: <i>Armed, Deployable Helos</i>							
COST (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
Total Program Element	69.922	82.363	90.494	-	90.494	50.043	15.300	-	-	Continuing	Continuing
538: <i>KIOWA WARRIOR</i>	67.908	67.378	85.468	-	85.468	50.043	15.300	-	-	Continuing	Continuing
53Z: <i>ARMED SCOUT HELICOPTER</i>	2.014	14.985	5.026	-	5.026	-	-	-	-	Continuing	Continuing

Note

Change Summary Explanation:
FY 2011: Base funding realigned to other Army programs.
FY 2012: Base funding realigned to other Army programs.
FY 2013: Base funding realigned from other Army programs.

A. Mission Description and Budget Item Justification

The Kiowa Warrior (KW) funding line (Project 538) develops, integrates and tests modifications which will allow the OH-58D to continue to safely serve as the Army's armed reconnaissance aviation capability until replaced/retired. An ACAT II program, KW Cockpit and Sensor Upgrade Program (CASUP), was established to address capability shortfalls, obsolescence, and safety issues with the current fielded fleet. KW CASUP is not the alternative solution to meet the Armed Scout Helicopter capability.

Funding supports the Armed Aerial Scout (AAS) voluntary flight demonstration and AAS milestone support/risk reduction. Post FY 2013 funding will be re-addressed as program strategies mature.

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APPROPRIATION/BUDGET ACTIVITY		R-1 ITEM NOMENCLATURE			
2040: Research, Development, Test & Evaluation, Army		PE 0604220A: Armed, Deployable Helos			
BA 5: Development & Demonstration (SDD)					
B. Program Change Summary (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Previous President's Budget	72.550	166.132	59.958	-	59.958
Current President's Budget	69.922	82.363	90.494	-	90.494
Total Adjustments	-2.628	-83.769	30.536	-	30.536
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-2.027	-			
• Adjustments to Budget Years	-0.178	-83.769	30.536	-	30.536
• Economic Assumption	-0.369	-	-	-	-
• FFRDC	-0.054	-	-	-	-

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Exhibit R-2A, RDT&E Project Justification: PB 2013 Army								DATE: February 2012			
APPROPRIATION/BUDGET ACTIVITY 2040: <i>Research, Development, Test & Evaluation, Army</i> BA 5: <i>Development & Demonstration (SDD)</i>				R-1 ITEM NOMENCLATURE PE 0604220A: <i>Armed, Deployable Helos</i>				PROJECT 538: <i>KIOWA WARRIOR</i>			
COST (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
538: <i>KIOWA WARRIOR</i>	67.908	67.378	85.468	-	85.468	50.043	15.300	-	-	Continuing	Continuing
Quantity of RDT&E Articles											
A. Mission Description and Budget Item Justification											
<p>The OH-58D Kiowa Warrior (KW) is a two-seat, single-engine, observation, scout/attack helicopter with four main rotor blades. It utilizes a thermal-imaging system and a laser rangefinder/designator in a mast-mounted sight situated above the main rotor system. The aircraft is equipped with a variety of weapon systems including: HELLFIRE, 2.75-inch rockets, and a .50-caliber machine gun. The aircraft operates autonomously at standoff ranges providing armed reconnaissance, command and control, and target acquisition/designation for Apache helicopters and other airborne weapons platforms in day, night, and adverse-weather conditions. Sensor imagery from compatible Unmanned Aerial Systems and manned aircraft can be received and relayed to other aircraft or ground stations. The Active Army and the National Guard fly Kiowa Warriors.</p> <p>Funding develops, integrates and qualifies modifications to support Kiowa Warrior missions. The ACAT II KW Cockpit and Sensor Upgrade Program (CASUP) will convert the OH-58D/D(R) to the OH-58F configuration, and allow it to continue to safely serve as the Army's armed reconnaissance, aviation platform through its operational service end date of FY 2025. Efforts include upgrading to Control Display Subsystem version 5 (CDS5), adding a second AN/ARC231 SATCOM Radio, third Multifunction Display (MFD), Dual Channel Full Authority Digital Electronic Controller(FADEC), armament enhancements, replace the Mass Mounted Sight (MMS) with an advanced Nose Mounted Sensor (NMS), and other weight and obsolescence reduction upgrades. Cockpit and maintenance trainers will be upgraded to maintain concurrency.</p>											
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)							FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Title: Development and Integration							51.228	45.635	51.966	-	51.966
Articles:							0	0			
Description: Development and Integration Efforts											
FY 2011 Accomplishments:											
Development and Integration Efforts											
FY 2012 Plans:											
Development and Integration Efforts											
FY 2013 Base Plans:											
Development and Integration Efforts											
Title: Engineering Support Activities							8.005	14.276	17.934	-	17.934

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APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: Development & Demonstration (SDD)		R-1 ITEM NOMENCLATURE PE 0604220A: Armed, Deployable Helos		PROJECT 538: KIOWA WARRIOR		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)						
		FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Articles: 0		0	0			
Description: Engineering Support Activities						
FY 2011 Accomplishments: Engineering Support Activities						
FY 2012 Plans: Engineering Support Activities						
FY 2013 Base Plans: Engineering Support Activities						
Title: Test and Evaluation		2.030	1.168	7.696	-	7.696
Articles: 0		0	0			
Description: Test and Evaluation						
FY 2011 Accomplishments: Test and Evaluation						
FY 2012 Plans: Test and Evaluation						
FY 2013 Base Plans: Test and Evaluation						
Title: Program Management		6.645	6.299	7.872	-	7.872
Articles: 0		0	0			
Description: Program Management						
FY 2011 Accomplishments: A. Program Management						
FY 2012 Plans: B. Program Management						
FY 2013 Base Plans:						

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APPROPRIATION/BUDGET ACTIVITY 2040: <i>Research, Development, Test & Evaluation, Army</i> BA 5: <i>Development & Demonstration (SDD)</i>		R-1 ITEM NOMENCLATURE PE 0604220A: <i>Armed, Deployable Helos</i>		PROJECT 538: <i>KIOWA WARRIOR</i>	

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
C. Program Management					
Accomplishments/Planned Programs Subtotals	67.908	67.378	85.468	-	85.468

C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
• (AZ2200): <i>Kiowa Warrior</i>	202.437	92.552	192.484		192.484		485.709	577.703	536.035	782.731	3,211.522
• (A02345): <i>Kiowa WRA</i>		100.800	0.000	183.900	183.900					0.000	284.700

D. Acquisition Strategy
The Government will serve as the system integrator managing multiple contracts.

E. Performance Metrics
Performance metrics used in the preparation of this justification material may be found in the FY 2010 Army Performance Budget Justification Book, dated May 2010.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Army											DATE: February 2012			
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: Development & Demonstration (SDD)				R-1 ITEM NOMENCLATURE PE 0604220A: Armed, Deployable Helos				PROJECT 538: KIOWA WARRIOR						
Management Services (\$ in Millions)				FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total				
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract	
Program Management	Various	Various Activities:Various Activities	14.673	6.299		7.872		-		7.872	Continuing	Continuing	Continuing	
Subtotal			14.673	6.299		7.872		-		7.872				
Remarks Funding will provide Armed Scout Helicopter (ASH) Government and contractor Program Management, Engineering, and Logistical support for CASUP.														
Product Development (\$ in Millions)				FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total				
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract	
Development and Integration	Various	Honeywell Inc (CDS5 Software Development):PIF (Structural Integration)	177.799	45.635		51.966		-		51.966	Continuing	Continuing	Continuing	
Subtotal			177.799	45.635		51.966		-		51.966				
Remarks Funding will provide both contractor and in-house development and integration efforts for Cockpit and Sensor Upgrade Program (CASUP).														
Support (\$ in Millions)				FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total				
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract	
Engineering Support Activities	Various	Various Activities:AED & SED	21.442	14.276		17.934		-		17.934	Continuing	Continuing	Continuing	
Subtotal			21.442	14.276		17.934		-		17.934				
Remarks Funding will provide CASUP engineering support activities performed by Aviation Engineering Directorate (AED) and Software Engineering Directorate (SED).														

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Army											DATE: February 2012		
APPROPRIATION/BUDGET ACTIVITY 2040: <i>Research, Development, Test & Evaluation, Army</i> BA 5: <i>Development & Demonstration (SDD)</i>				R-1 ITEM NOMENCLATURE PE 0604220A: <i>Armed, Deployable Helos</i>				PROJECT 538: <i>KIOWA WARRIOR</i>					

Test and Evaluation (\$ in Millions)				FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Test and Evaluation	Various	Various Activities:RTC, AATD, DTC, OTC	6.421	1.168		7.696		-		7.696	Continuing	Continuing	Continuing
Subtotal			6.421	1.168		7.696		-		7.696			

Remarks Funding will provide CASUP test and evaluation activities conducted by Redstone Test Center (RTC), Aviation Applied Technology Directorate (AATD), Developmental Test Command (DTC), and Operational Test Command (OTC).													
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	Total Prior Years Cost	FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	220.335	67.378		85.468		-		85.468			

Remarks											
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Exhibit R-4, RDT&E Schedule Profile: PB 2013 Army																DATE: February 2012							
APPROPRIATION/BUDGET ACTIVITY								R-1 ITEM NOMENCLATURE								PROJECT							
2040: Research, Development, Test & Evaluation, Army								PE 0604220A: Armed, Deployable Helos								538: KIOWA WARRIOR							
BA 5: Development & Demonstration (SDD)																							

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Exhibit R-4A, RDT&E Schedule Details: PB 2013 Army

DATE: February 2012

APPROPRIATION/BUDGET ACTIVITY

2040: *Research, Development, Test & Evaluation, Army*
BA 5: *Development & Demonstration (SDD)*

R-1 ITEM NOMENCLATURE

PE 0604220A: *Armed, Deployable Helos*

PROJECT

538: *KIOWA WARRIOR*

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Critical Design Review (CDR)	2	2012	2	2012
Milestone C	2	2015	2	2015

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Exhibit R-2A, RDT&E Project Justification: PB 2013 Army									DATE: February 2012		
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: Development & Demonstration (SDD)				R-1 ITEM NOMENCLATURE PE 0604220A: Armed, Deployable Helos				PROJECT 53Z: ARMED SCOUT HELICOPTER			
COST (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
53Z: ARMED SCOUT HELICOPTER	2.014	14.985	5.026	-	5.026	-	-	-	-	Continuing	Continuing
Quantity of RDT&E Articles											

A. Mission Description and Budget Item Justification

The mission of the Kiowa Warrior replacement aircraft is to provide a robust reconnaissance and security capability for the Joint Combined arms air-ground maneuver team. It will be a direct replacement for the aging OH-58D Kiowa Warrior / OH-58F Kiowa Warrior CASUP fleet or an upgrade to the OH-58 design.

The aircraft will provide a highly deployable, reconnaissance and security capability that will employ immediately upon arrival into theater. The platform will address the capability gaps of interoperability, survivability, versatility, agility, lethality, and sustainability to ensure interoperability over extended ranges, enhance mission effectiveness throughout the operational environment, and focus on system survivability against threats operating in the contemporary operational environment, while reducing the logistical burden on the tactical unit. The fundamental purpose is to perform reconnaissance and to provide security in combat operations. In doing so, it improves the commander's ability to maneuver and concentrate superior combat power against the enemy at the decisive time and place.

Funding supports the Armed Aerial Scout (AAS) voluntary flight demonstration and AAS milestone support/risk reduction. Post FY 2013 funding will be re-addressed as program strategies mature.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Title: AAS AoA and Milestone Support/Risk Reduction	2.014	6.285	5.026	-	5.026
Articles:	0	0			
Description: Funding is provided for the following effort					
FY 2011 Accomplishments: Continue AAS AoA and Milestone support					
FY 2012 Plans: Complete AoA and initiate AAS Milestone Support/Risk Reduction					
FY 2013 Base Plans: AAS Milestone Support and Risk Reduction					
Title: Voluntary Flight Demonstration	-	8.700	-	-	-

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<u>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</u>	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Articles:		0			
Description: Funding is to support Voluntary Flight Demonstration FY 2012 Plans: Voluntary Flight Demonstration					
Accomplishments/Planned Programs Subtotals	2.014	14.985	5.026	-	5.026

C. Other Program Funding Summary (\$ in Millions)
N/A

D. Acquisition Strategy
Not applicable for this item.

E. Performance Metrics
Performance metrics used in the preparation of this justification material may be found in the FY 2010 Army Performance Budget Justification Book, dated May 2010.

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Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2013 Army																DATE: February 2012			
APPROPRIATION/BUDGET ACTIVITY								R-1 ITEM NOMENCLATURE								PROJECT			
2040: Research, Development, Test & Evaluation, Army BA 5: Development & Demonstration (SDD)								PE 0604220A: Armed, Deployable Helos								53Z: ARMED SCOUT HELICOPTER			

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Exhibit R-4A, RDT&E Schedule Details: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: <i>Research, Development, Test & Evaluation, Army</i> BA 5: <i>Development & Demonstration (SDD)</i>	R-1 ITEM NOMENCLATURE PE 0604220A: <i>Armed, Deployable Helos</i>	PROJECT 53Z: <i>ARMED SCOUT HELICOPTER</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
VOLUNTARY FLIGHT DEMONSTRATION	1	2012	4	2012
MILESTONE SUPPORT and RISK REDUCTION	3	2012	4	2013